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OPERATION FOR ECTROPION OF THE LOWER  
LID BY THE SLIDING FLAP METHOD.<sup>1</sup>

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The method of operating by sliding flaps to fill the defects left after the removal of morbid growths is not a new one, but has only of late been much adopted in operating upon the eye-lids, and is now described in all modern books on ophthalmology. The object of this communication is to show the adaptability of this method to the cure of cicatricial ectropion of the lower lid, which, so far as I know, has not hitherto been very generally put in practice.

Mrs. W., æt. 48 years, was admitted to the New Amsterdam Eye and Ear Hospital March 17, 1890, suffering from an ectropion of the lower lid. On Sept. 9, 1889, she was operated on for the removal of an epithelioma of the lower eye-lid, the subsequent healing resulting in ectropion. To relieve this the same surgeon essayed an operation which, however, not only failed, but, as she says, made the ectropion much worse.

<sup>1</sup>Read before the American Ophthalmological Society, July 16, 1890.

The condition shown by the patient on her admission was that usually seen in cicatricial ectropion. The lower lid was dragged downward and somewhat outward, the conjunctiva exposed to its *cul de sac*, forming in its extent an equilateral triangle, at the apex of which was situated the most dense cicatricial tissue. The lower canaliculus was pulled about 4.5 mm. from its normal position. The exposed conjunctiva in a state of hyperæmia and hypertrophy, and the eye constantly overflowing with tears, complete closure of the eye was impossible.

I began the operation with the intention of practicing the method known as Wolfe's transplantation of flap without a pedicle, but after the relief of the lid, removal of the cicatricial tissue, and stitching together of the eye-lids, I determined to fill the gap with a sliding flap from the temple instead.

The operation was made as follows: Having slit the lower canaliculus, I introduced a probe and pushed it horizontally into the lachrymal duct, then make a curved incision a little beyond the puckered edge of the cicatrix, dissected it free from the malar bone to which it was adherent, keeping my finger in the conjunctival *cul de sac* to avoid cutting through the cicatricial tissue bands, which proved to be very extensive and to extend up to the inner canthus, were all carefully removed and the whole extent of the gap exposed. I now pared and stitched the eye-lids together by four points of interrupted suture. The large defect left was filled by carrying an upper incision along the cheek over the zygoma, well out upon the temple and toward the ear, and a lower one in the same direction over the cheek, the outer end of the upper incision being directed upward, and the outer end of the lower incision downward, diverging from each other, in such a manner as to secure greater width of the pedicle. The length of the upper incision was 10 cm., and of the lower, 8 cm., 7.5 mm. This flap was then carefully dissected up, only the skin and immediate subcutaneous tissue being included; and, this done, the flap was slid inward over the whole area of raw surface, which it completely filled without any traction,

and united by sutures to the opposite side. After waiting for all bleeding to subside, they were carefully adjusted with points of interrupted sutures of fine black silk, 24 in number. Only a moderate amount of bleeding took place during the operation, and when finished the color of the flap was quite similar to the same area on the opposite side of the face. During the progress of the operation and while stitching the flap, a towel wrung out of hot water was occasionally applied to the surface to maintain its vitality. The patient was allowed to come from under the influence of the ether before all the stitches were applied and bore the operation well. The dressing consisted of iodoform gauze smeared with carbolyzed vaseline, and a thick layer of absorbent cotton, all of which was held in place by a roller bandage applied in such a way that traction was made on the flap in the direction of its apex. Time of operation, one hour and three-quarters.

The next day the patient had no pain, the pulse and temperature were normal and the dressing was not disturbed. The day following, March 20, the dressing was removed and the wound was found to be entirely united by first intention; no swelling; no evidence of suppuration.

From this time on the healing took place without an untoward symptom of any kind. At no time was there any suppuration, not a drop of pus was discharged.

On March 22, several of the stitches were removed. Union of the upper and lower lid had only taken place in its outer quarter.

The day following all the other stitches were removed, and the apposition of the flap was everywhere perfect, with no tendency to separate, the line of union being everywhere firm.

March 25, bandage was left off and on the 27th the union of the lids severed by the scissors.

The patient was discharged two weeks after her admission with the most gratifying result imaginable. There was complete cure of the ectropion. The margin of the lower lid lay in nice apposition with the eye; closure of the lids was perfect, and it was really surprising how little deformity resulted from

the operation. At a little distance off the scars were hardly noticeable, since they lay in the natural wrinkles of the face. There was slight redundancy of the inner lower part of the flap, numbness and occasional neuralgic pains in it.

It seems to me that when this method is applicable, it is much to be preferred to Wolfe's flap without a pedicle, in which the author himself seems to have had better results than anyone else, nor does it leave in a suitable case more deformity.

The uniting of the free margins of the lids is not necessary, but in my case was included when I had the intention of practicing Wolfe's method, for if properly made the whole traction of the healing will be horizontally in the long axis of the scar and consequently will tend to render the ectropion less.

## EXTENSIVE LACERATION OF THE EYE WITH RECOVERY.

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BY CHARLES H. MERZ, A.M., M.D., SANDUSKY, O.

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The following case is thought worthy of record because of the somewhat unusual character of the injury and subsequent recovery.

On Thursday, May 18, 1890, J.M., æt. 16 years, was brought to my office two hours or more after the right eye had been struck by the steel tine of a pitchfork. While unloading hay, a fork slipped from the top of the load and falling, in some manner, struck the upturned face in an oblique direction. The fork entered the outer margin of the lower eyelid, piercing the sclerotic. The injury was followed by free hæmorrhage, which was controlled by a cotton handkerchief bound over the eye, and the patient was brought eight miles over hot dusty roads to my office.

Upon examination, the eye showed a lacerated wound of the lower lid near the outer commissure, and a wound of like character of the entire lower half of the cornea at its junction with the sclerotic.

The cornea was partly collapsed from the escape of fluid, but the remnant of the anterior chamber was filled with blood; the iris had been torn, and the lower portion was protruding. The entire globe and lid were intensely congested, and there was still a slight hæmorrhage.

The patient complained of severe pain in the eye and surrounding parts.

After carefully washing the eye with a stream of bichloride, 1:5000, an attempt was made to replace the lacerated iris, but this being found impossible, it was gently withdrawn, and the

free portion cut off. There was some doubt as to the use of eserine or atropine, but the latter was employed 4 gr. to 15. The margins of the corneal wound were apposed as carefully as possible, and pledgets of lint, wet in ice water, applied continuously.

After the lapse of 24 hours the eye was found still badly congested and the patient was suffering much pain.

Six leeches were at once applied, and the following solution dropped in the eye every four to six hours: *R*. Hydrastiae sulph., gr. jss; acidi boracici, gr. iv.; tr. opii deod.,  $\mathfrak{m}$ xl.; cocaine hydrochlor., gr. ij; aquæ, 3j. These measures had the effect of lessening the pain somewhat, but the congestion was still very marked. The free use of magnesiæ sulphate with mercurial inunctions and occasional leeching brought about a lessening of the congestion and kept the patient comfortable. The room was kept darkened and the ice water compresses continued at intervals for three weeks. Hot water was tried, but was not so comfortable as cold.

At the end of the third week photophobia and lachrymation had almost disappeared, and no pain was complained of.

The hæmorrhagic clot in the anterior chamber gradually changed color, fading to a light yellow. At the end of six weeks there was perception of light, but no more.

Some conjunctival redness remained, but the patient was able to perform light manual labor by protecting the eye with dark smoked glasses.

Under the use of iodide of potassium the clot has been gradually absorbed, and vision is returning.

In this connection I would urge from personal observation in a number of cases that enucleation of an injured eye be delayed more frequently than it is. Sympathetic inflammation is not so often the result of an injury as it is believed to be. At all events, the removal should be deferred for a length of time sufficient to prove the possibility or impossibility of saving the eye.

## CASES OF PHLEGMONOUS GANGRENE OF THE LID.

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BY HARRY FRIEDENWALD, A.B.; M.D.,

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Cases such as the one I wish to describe are, fortunately, very rare. They will, undoubtedly, become still more infrequent as the antiseptic treatment of fresh wounds, however slight they may be, becomes more widely spread, not in the profession alone but also among laymen; for these gradually learn the practices of medicine and surgery, and take them up in treating their petty ills and injuries. Had the case whose history I shall narrate been promptly and properly treated, the little wound received would probably have healed, scarcely leaving a scar; its neglect resulted in serious illness and lasting deformity.

On May 12, Dr. Wolf called me to see the two and a half year old daughter of Mr. S. The child, who had otherwise been perfectly healthy, had injured itself slightly while playing in the cellar, having "scratched its temple." This occurred on the afternoon of May 10. Nothing had been done for it. On the following day the eyelids began to swell to such an extent as to alarm the parents, who sent for Dr. Wolf the next morning. Regarding it as a very serious injury, perhaps involving the eye, he called on me to take charge of the case. I saw the child on the afternoon of the same day (May 12), and found great inflammatory œdema of the lids of the left eye, the upper lid covering the lower, and a small wound near the outer canthus. The child was very restless and suffering. The temperature was not measured, but there appeared to be slight



fever. On close inspection I noted a few pale spots, as small as a pin's head on the surface of the deeply congested upper eyelid. On raising the lid with an elevator, I found the eyeball normal. In order to relieve the tension on the lid, I made a few incisions. I then ordered hot water applications to be made constantly, and four drops of the tincture of the chloride of iron to be given every three hours.

May 13. Swelling intense, extending even to the right eye. The skin covering the upper lid is necrotic to a large extent, presenting a gray appearance, the gangrenous part is somewhat flattened, sunken, and bounded by a sharp line. The general condition is unchanged.

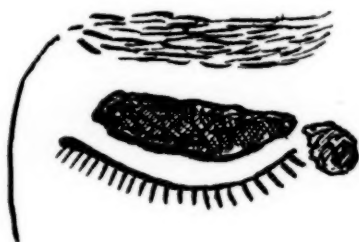


FIG. 15.

May 14. The mother showed me a large slough which had been thrown off. This has left a great open ulcer with deep edges. (See Fig. 15). Its surface is covered with thin gray necrotic tissue, and bleeds easily. The redness and the swelling are reduced. Dressed with iodoform.

May 16. The surface of the ulcer is still to a great extent covered with the necrotic tissue, granulations showing only here and there.



My daily record shows that there was a slow extension of the ulcer so that, on May 17, it reached the ciliary margin of the lid below, and to within  $\frac{1}{2}$  cm. of the brow, and from the nasal edge so far to the temporal side as to include the primary wound. (See Fig. 16). At this last

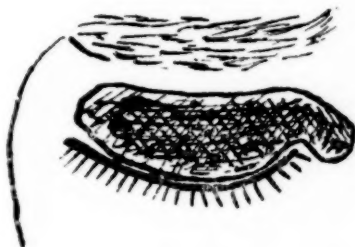


FIG. 16.

mentioned spot it is deepest. There is a great amount of suppuration, but the gray necrotic surface has been cleaned so as to present a granulating wound. From this time the wound began to fill up so that its surface reached the level of the edges, and cicatrization proceeded slowly. During this time I found that no pus escaped from the palpebral fissure, and this assured me that there was no need to examine the eyeball, which, I was confident, was unaffected. It was not before the 26th that I raised the lid, to find the eye perfectly normal, the scleral conjunctiva alone being somewhat reddened. The course of healing was uninterrupted, so that by June 16, when I last saw the patient, it was all but completely cicatrized; at this time a very slight ectropion was beginning to show itself, though the lids could still be brought together

nicely; all swelling had disappeared; nevertheless further contraction of the cicatrix may cause still greater deformity of the lid, in which case it will be necessary to relieve it by operation. (See Fig. 17).

The idea of transplantation recommended in similar cases was entertained during the treatment, but the great amount of suppuration, which could not be controlled, prevented any attempt from being made.

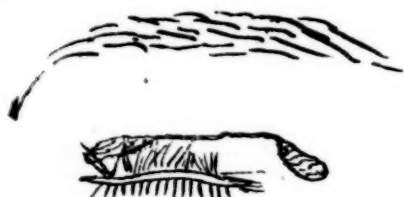


FIG. 17.

I wish to call attention to the *very rapid course of the gangrene*, this occurring within 48 hours after the redness appeared, or 60 hours after the injury had taken place. The case is similar to those very acute and malignant cases of "phlegmonous inflammation," ending in gangrene described by Michel<sup>1</sup>, Horner<sup>2</sup>, Fuchs<sup>3</sup>, Noyes<sup>4</sup>, and others.

<sup>1</sup>Graefe and Saemisch, Bd. IV., p. 387.

<sup>2</sup>Handbuch d. Kinderkrankheiten, 1889. Bd. V., Abth. II., p. 220.

<sup>3</sup>Lehrb. d. Augenkr., p. 507.

<sup>4</sup>Diseases of the Eye, p. 233.

As remarked by Fuchs (loc. cit.), so also in this case the gangrene did not extend beyond the margin of the lid, or involve the portion bearing the cilia, owing to this portion of the lid being best supplied with blood (from the *arcus tarseus inferior*).

It is advisable to examine the eyeball as rarely as possible, and not to be induced by a pardonable curiosity nor the parental anxiety to raise the lid frequently with instruments. However smooth these instruments may be, they may produce abrasions in the still healthy cornea, and thus give access of the virulent infection to the eyeball.

## SOCIETY PROCEEDINGS.

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### OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

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Regular Meeting Friday, July 4, 1890, J. Hughlings Jackson, M.D., F.R.S., President, in the Chair.

#### CONCUSSION OF THE EYE-BALL GIVING RISE TO ACUTE LOCAL SYMPTOMS OF CONGENITAL SYPHILIS.

Dr. Adolf Bronner (Bradford) recorded three cases in which concussion of the eyeball in patients with a history of congenital syphilis has given rise to interstitial keratitis and peripheral choroiditis.

1. A girl, æt. 14 years, was hit on the left eye with a shuttle at the mill. Interstitial keratitis set in, and seven months afterward the cornea of the right eye became similarly affected.

2. A man, æt. 22 years, was struck on the left eye with a piece of coal. The cornea was steamy the next day, and typical syphilitic interstitial keratitis set in, and in ten days the right cornea was affected. In this case there were brown-black patches of choroidal pigment in the periphery of the fundus.

3. A boy, æt. 9 years, was struck on the left eye with a dart. Three weeks afterward he noticed that he could not see so well with that eye. The cornea and media were clear, but there was a patch of choroidal absorption near the macula and peripheral choroiditis. Dr. Bronner thought that, from a legal and also therapeutic point of view, it was of great importance to know if concussion of the eye-ball could cause a local out-

break of latent congenital syphilis. He thought that this did occur very frequently, but was overlooked.

**"CEPHALIC TETANUS" FOLLOWING A PENETRATING WOUND  
OF THE ORBIT.**

Dr. Rockliffe (Hull) recorded this case. The patient, a boy *æt.* 7 years, received a slight penetrating wound of the left orbit from a fall. Two small pieces of thorn supplicated out on the seventh day. On the tenth day he complained of stiffness of the left face and neck, which was followed by spasmodic contractions of the left side of the face, complete right, partial left ptosis, with flattening of the left side of the face, and inability to open his mouth. The wound and orbit were explored and thoroughly washed out with perchloride of mercury solution; the spasms, which disappeared under chloroform, continued to increase, and became more general, even to opisthotonos, until the twelfth day, when they began to decrease, and entirely ceased in three weeks. The facial paralysis, ptosis, and inability to open the mouth remained for some weeks afterward. Twelve weeks after the accident the only symptoms were slight drooping of the left lid and diplopia on convergence for near objects, both of which were decreasing.

The President asked if paralysis of the portio dura was at all usual in cases of tetanus. He did not remember to have seen a case.

**PYÆMIC PANOPHTHALMITIS.**

Dr. Rockliffe read notes of a case occurring in both eyes in a patient *æt.* 30 years, who miscarried in the sixth month of her fifth pregnancy, and subsequently suffered from septic poisoning. The ocular symptoms commenced on the thirteenth day, and vision was completely lost in forty-eight hours; suppuration of the vitreous and in the orbit followed, with considerable proptosis of both eyes. She also had ischio-

rectal abscess, and abscess of the left forearm. In a month the suppuration of the orbits ceased, and both eyeballs shrank. The patient regained her general health in three months. The ocular inflammation was considered to be probably embolic in its origin.

#### NOTE ON THE OPERATIVE TREATMENT OF SCLERAL WOUNDS.

Dr. George A. Berry (Edinburg) communicated a paper on this subject, in which he drew a contrast between the course of perforating wounds of the sclera as compared with similar injuries to the cornea. The more unfavorable termination of the former he attributed to greater liability to infection, owing either to the imperfect apposition of the lips of the wound, or to the absence of that copious outpouring of lymph or gush of aqueous, which carried away micro-organisms when the cornea was wounded. He considered the most effectual method of removing and excluding micro-organisms consisted in thoroughly washing with corrosive sublimate solution, and then detaching and stretching the conjunctiva across the opening in the sclerotic, and compared this method to the converting of a compound into a simple fracture. He was averse to direct suturing of the sclera on account of the risks and complications it introduced, and considered it practically impossible to keep a wound in the conjunctival sac aseptic by means of lotion or dressing. It was usual for him to remove a portion of conjunctiva on one side of the wound, so that the suture subsequently introduced might not lie directly over it. Any portion of prolapsed vitreous might be snipped off after the introduction of the stitches and before they were drawn together.

#### ACUTE CELLULITIS OF THE ORBIT WITH A FATAL RESULT.

Mr. Simeon Snell (Sheffield) recorded this case, occurring in a young girl of 14, and following a swelled face due to carious teeth. Two teeth had been removed from the upper jaw

on the corresponding side, and subsequently, while the face was still swollen, the patient had been for a drive on a cold day in an open trap. When seen a fortnight later there was great swelling of the lids on the right side, with proptosis and œdema of the conjunctiva. There was apparently no affection of sight, but ophthalmoscopic examination was not possible beyond that which sufficed for the observation that the media were clear. There had been considerable pain in the orbit with headache and vomiting. Three days later a considerable quantity of pus was let out by an incision through the inner third of the lower lid. Its escape afforded great relief, and the eyeball resumed its normal position. Two days later, however, the patient was much worse; there was great pain extending to the occiput, with vomiting and retraction of the head. She passed into a comatose condition and died the following day. There were no convulsions, but the pain in the head was complained of as long as she remained conscious. The condition of the orbit appeared quite satisfactory, and the drainage tube had been removed. A post-mortem examination was not allowed. It was ascertained that at the extraction of two teeth from the upper jaw there was a discharge of very fœtid pus, and the bone immediately around the roots was necrosed, the gum being inflamed and turgid. The teeth were badly decayed, the dentine being thoroughly softened. There could be no doubt that in this case the condition resulting from the carious teeth was the immediate cause of the necrosis and orbital cellulitis. Mr. Snell referred to two somewhat analogous cases which he had seen, one published in the *Ophthalmic Review*, 1882, the second in the current number of that journal.

#### CASES OF SYMBLEPHARON TREATED BY A SKIN FLAP.

Mr. Edgar Browne (Liverpool) reported two cases which he had successfully treated in this way. He had done this operation many years ago, but his procedure differed from that lately recommended by Prof. Snellen, in that he stitched the



flap to the eyeball, whereas Snellen applied the flap to the conjunctival surface of the eyelid.

Mr. Silcock said he had performed the operation in question, and had shown the case before the society. He could not speak of it in such glowing terms as did Prof. Snellen. There was much thickening of the skin flap, which had not subsided after the lapse of some months.

THURSDAY, JUNE 12, 1890.

THE ARTIFICIAL MATURATION OF IMMATURE SENILE CATARACT  
BY TRITURATION.

Mr. McHardy concluded his paper on this subject, the first part of which he read before the society at the meeting on May 1. An abstract of this paper was published in the *Journal* of May 10, to which readers are referred. In his last hundred cases he had been obliged to remove the lens sooner than he intended in two cases, in both of which useful vision had been restored. In 3% of the cases, sight had been entirely lost.

ARTIFICIAL RIPENING OF CATARACT: FOERSTER'S OPERATION.

Mr. Simeon Snell (Sheffield) read a paper on this subject. After a passing reference to other methods of dealing with the class of cataracts in which the process of maturation proceeded so slowly as greatly to interfere with the comfort of the patient, and often to occasion worry and distress, he proceeded to speak of Foerster's operation. He had performed this method of ripening by trituration of the lens capsule through the cornea in ten cases, being about 6 or 7% of the cataract (senile) operations during the same period. He gave particulars of each case, and thought well of the operation. If performed with care, it appeared free from harm; if its immediate object was not attained, as in two of his cases, no evil results had ensued. No iritis nor ocular irritation had been occasioned in any case. The increased opacity showed itself fre-

quently a few days after the operation, and extraction of cataract could generally be proceeded with in a month to six weeks subsequently. The stroking of the capsule should be gently done and in the centre as much as possible. The iridectomies in his cases had been small and made downward, and the extractions were performed by a shallow lower flap.

Mr. Critchett said that at Leeds a year ago he had expressed the hope that at no distant date an opportunity might offer of gaining statistics on this important subject, which must be faced sooner or later. Already great progress had been made in the methods of extracting cataracts. He spoke of seven or eight cases of which his experience consisted, which had been commenced under great compulsion, and proceeded with only with great caution and some misgivings. Iritis had occurred in two, but no eye had been lost. During the last few years his success had quite equalled his expectations, and he thought that immature cataract could be removed almost as well as mature ones. He was convinced that it was wiser to wait till the patient could no longer see to find his way about before operating, and referred to a saying of Mr. Critchett, Sr.: "You must always remember that the probabilities in ophthalmic surgery are so delightful that every one would want to become an oculist; the possibilities, however, are so dreadful that they can only be mentioned to oneself in a whisper."

Mr. Tweedy said that his experience in dealing with immature senile cataract was scarcely comparable to Mr. McHardy's. For more than nine years he had operated, when the necessity arose, upon unripe cataracts—that is, where both eyes are so affected that the patient was unable to follow his occupation. The results had been satisfactory, and this he ascribed entirely to the *modus operandi* he employed, which consisted essentially in opening the lens capsule at its extreme upper periphery after performing iridectomy. By this procedure the face of the anterior capsule was untouched, and any lens matter which remained behind or which formed subsequently was inclosed in the capsule in its natural position, and did not come into contact with the iris. In the seven years,

1881 to 1888, he had operated upon twenty-nine immature senile cataracts at Moorfields Hospital. Of these one eye was lost from late serous iritis and glaucoma, two suffered from a sharp attack of iritis, and one lost a little vitreous. He assured Mr. McHardy that most ophthalmologists were fully alive to the importance of dealing with this class of cases. He had had no personal experience of trituration of the lens, but he thought that there were several possible drawbacks to the operation. Mr. McHardy had stated that iritis frequently followed trituration, and this was certainly an undesirable state of things to precede extraction; there was another possible drawback, namely, that the friction might induce thickening of the anterior capsule, and thereby lead to difficulties in secondary capsule operations. Of the twenty-nine cases referred to, a "secondary" needling was required in thirteen; he had not examined his records for the last two years.

Mr. Hulke said that he had come rather to listen and learn than to speak, as his experience did not furnish him with sufficient grounds for forming a judgment; but he fully endorsed the views of Mr. Critchett and Mr. Tweedy with regard to the ethics of this question, and would not himself feel justified in meditating the operation or suggesting it to a patient.

Mr. McKinlay said he had not taken kindly to the trituration operation described by Mr. McHardy, when he had first seen it performed. Recently he had been more favorably impressed therewith, and had performed the operation in about twelve cases. In all he had obtained satisfactory results, and no undue toughness of the capsule had followed.

Mr. Henry Eales (Birmingham) said he had not yet had a very wide experience in operating upon immature cataracts except in some cases of nuclear opacity. He had operated in such cases now about 30 times, being at first compelled by circumstances. One case was that of a farmer, who had already lost one eye and was incapacitated by opacity in the other lens. The result was good, the man obtaining vision equivalent to  $\frac{5}{VI}$ . In no case was there failure in obtaining maturation. The lenses were removed about six weeks later.

The cases exhibited slender adhesions of the iris to the capsule, which easily gave way to atropine. The lens generally came away very cleanly, leaving a clear pupil, and no after-needling was required.

Dr. Hill Griffith (Manchester) had done the operation in 28 cases, but always by direct trituration by means of a silver spoon introduced through the iridectomy wound. In 24 of these cases, no result whatever was produced in 13, or just over a half, and in one of these partial dislocation of the lens took place; this was the only mishap he had had from the operation. In the remaining 11 cases rapid maturation was effected, followed by extraction, with slight loss of vitreous in one case only. Good vision was ultimately obtained in all, but convalescence was very tedious from retention of cortex. The operation was useless for dealing with opacities which had no natural tendency to progress, as he had proved in zonular cataract and cart-wheel-like opacities in the posterior layers of the lens, and he had been disappointed in several cases of exceptionally slow growing cataracts, so that he thought that the cases in which the procedure might be of use were not so frequent as Mr. McHardy's statistics seem to indicate.

Mr. Brailey thought the question required very careful examination, first on account of the limited applicability of the method, and secondly with regard to the ethics. In many cases the condition of the lenses did not seriously interfere with the occupation and progressed very slowly. Of 82 immature cataracts seen in  $1\frac{1}{2}$  year 26 were seen a second time, and of these only 4 required operation, and only 4 others had progressed appreciably. In many, vision had actually improved probably through a diminished use of the eyes. The ethics of the question also deserved careful consideration. Iridectomy had been introduced as a panacea for everything, and had brought operating to some extent into disrepute. Many cases operated on when immature would probably not have advanced if left alone. The eye was subjected to great risks by

the operation, and he thought they should advance very cautiously in its employment.

Mr. McHardy, in response, thanked the members of the Society for the interesting discussion which had been elicited, and replied briefly to some of the remarks made by different speakers.

MEETING OF THE BRITISH MEDICAL ASSO-  
CIATION, BIRMINGHAM, JULY, 1890.

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SECTION OF OPHTHALMOLOGY.

President, D. C. Loyd Owen, F.R.C.S.I.; Vice-Presidents, Henry Eales, M.R.C.S., and John B. Story, M.B.; Honorary Secretaries, Henry E. Juler, F.R.C.S., and E. Wood White, M.B.

The Section having been welcomed by the President, a discussion on "Myopia, Its Causes, Prevention, and Treatment," was opened by papers by Messrs. Priestly Smith and Richardson Cross, and continued by Messrs. Eales, Juler, Grossmann, Bell, Snell, Macnamara, Dr. Bull (Paris), Messrs. Cant, Hewetson, Wray, and the President. Mr. Cross and Mr. Priestly Smith replied, and on motion of Mr. Bell, seconded by Mr. Wray, the following resolution was adopted:

"That the officers of the Ophthalmological Section communicate with the Ophthalmological Society of Great Britain and Ireland, with a view of making recommendations to the Educational Department for the control of the increase of myopia in Board Schools."

Dr. Arthur Benson read a paper on "Blepharorcheiloplastic Operations," which was discussed by Messrs. Juler, Eales, Cross, Cant, Snell, and Dr. Reeve (Toronto).

Dr. Karl Grossmann read a paper on "Color Blindness."

THURSDAY, JULY 31.

A paper on "Ophthalmia Neonatorum" was read by Dr. Karl Grossmann, and the following resolution was subsequently adopted, on motion of Mr. Snell, seconded by Dr. Griffith:

"That the question of prevention of purulent ophthalmia be referred to a committee, consisting of the President of the Sec-

tion (Mr. Lloyd Owen), Mr. Snell and Dr. Grossmann, and that they be asked to prepare a resolution to be presented on this subject at the next annual meeting, and that they obtain, if possible, the aid of the Obstetric Section, with a view of bringing the subject before a general meeting of this Association."

Mr. M. McHardy read a paper on the "Treatment of Immature Senile Cataract," and the subject was discussed by Messrs. Hill, Griffith, Grossmann, Eales, Snell, Panas (Paris), Reeve, and the President. Mr. McHardy replied.

A new syringe for extracting soft matter in cataract operations was shown by Mr. Kant, and Messrs. Story, Juler, and Eales made some remarks upon it.

M. Panas (Paris) read a paper on "The Treatment of Secondary Cataract," upon which the President and Messrs. Story, Ruttle, Juler, and Eales made some remarks.

#### FRIDAY, AUGUST 1.

A paper on the "Treatment of Squint Amblyopia" was read by Mr. Wray, and discussed by Dr. Hill Griffith, Dr. Cardew, Messrs. Priestly Smith, Juler, Story and Eales. Mr. Wray replied.

Dr. A. Hill Griffith read a paper on the "Diagnosis of Intra-ocular Growths," which was discussed by Mr. Eales and Mr. Story.

Dr. Hill Griffith also read a report of a case of "Monocular Vertical Hemianopsia," upon which Mr. Eales made some remarks.

Dr. Edridge Green read a paper on the "Quantitative Estimation of Defects of Color Vision."

A paper on "Astigmatism" was read by Dr. Bull (Paris).

Mr. Henry Eales read a paper on the "Choice of Anæsthetics for Ophthalmic operations."

A paper by Mr. E. Roberts on "Death in Cases of Cataract Extraction" was taken as read.

The proceedings then terminated.



## TENTH INTERNATIONAL MEDICAL CONGRESS.— BERLIN.

### SECTION OF OPHTHALMOLOGY.

#### CAPSULOTOMY.

On Monday, August 4, the scientific work of the Section was introduced by Professor Knapp (New York) with a paper on Capsulotomy. All methods were objectionable except that of peripheral section and subsequent secondary operation. The latter was quite harmless, and alone able to affect a permanent cure. The old vertical incision in the capsule left a cicatrix and so did free opening of the capsule, while partial removal with forceps, with or without previous capsulotomy, was either successful or dislocated the lens, and causes loss of vitreous.

MM. Dufour, Wickerkiewicz, Gayet, O. Haab, and Professor Schweigger, spoke, and Professor Knapp replied.

The discussion showed that every method had its advocates and its detractors.

#### CATARACT.

Dr. Vignes (Paris) read a paper on operations for secondary cataract, and exhibited a new scissors for dividing secondary cataracts.

Dr. Chisolm (Baltimore) presented a communication on the after-treatment of cataract operations by isinglass plaster, the second eye being uncovered.

Dr. Roosa observed that the method was neither novel nor useful.

Drs. Fuchs and Gruening also spoke.

## TRACHOMA.

On August 5, a discussion on trachoma took place, in which Drs. Raehlmann, Schmidt-Rimpler, Swan Burnett, Chibret, Liebreich, Sattler, Logetschnikoff, Goldzieher, Wickerkiewicz, Helsrath-Konigsberg, Cohn, Knapp, Hirschberg, and Van Millingen took part.

It seemed to be generally admitted that the principal disposing influence in the production of trachoma were race, climate, and hygienic conditions, some races and some districts being remarkably free from the disease, and the upper classes everywhere generally exempt.

## CONTAGIOUS CONJUNCTIVITIS.

Dr. Weeks (New York) read a paper on the pathology of acute contagious conjunctivitis.

## PROPHYLAXIS OF BLENNORRHOEA NEONATORUM.

Dr. Karl Grossmann (Liverpool) spoke on the prophylaxis of blennorrhœa of infants, and proposed three resolutions:

1. Each midwife ought to be instructed during her time of apprenticeship about the symptoms and treatment of infantile ophthalmia. This ought to be notified on her certificate.
2. In every case where the signs of an inflammation of the eyes occurs during confinement, the midwife should be compelled to give notice to a medical man (in case of the poor, to the parish doctor) or some other authority.
3. In case the midwife omits any of these points, her certificate should be withdrawn or a fine imposed.

The Section was unanimously in favor of the above propositions, but it was thought wiser to leave the regulation of such matters to the authorities of each separate country, and not to come to any resolution on the subject.

## LATENT STRABISMUS.

Dr. Gradle (Chicago) exhibited an ingenious instrument for

determining the angle in latent strabismus, and Dr. Berry (Edinburgh) showed a stereoscopic phenomenon, and Maddox's device for determining the point of equilibrium of the ocular muscles.

In the subsequent discussion, Javal stated that astigmatism was usually the cause of asthenopia and latent strabismus, and Roosa asserted roundly that muscular insufficiency had no existence, but was always an effect of astigmatism.

Landolt, Hirschberg and Stevens protested against these views, and asserted their belief in pure muscular asthenopia.

#### OTHER PAPERS.

The following papers were also read:

1. M. Valude.—A Pathological Study.
2. Dr. Schneller (Danzig).—Contribution to the Theory of Squinting on the Basis of Anatomico-Pathological Researches.
3. Dr. Landolt (Paris).—The determination of the Prisms in Ophthalmological Practice.
4. Dr. Swan M. Burnett (Washington).—A Metric System of Numbering and Measuring Prisms with Exhibition of an Instrument for Setting Prisms.

#### TEST FOR COLOR VISION.

The following abstract of the papers and discussions will give some idea of the proceedings. On August 6, Dr. Grossmann (Liverpool) exhibited a new apparatus for color vision, the object being to detect very small scotomata, and establish the normal standard for the perception of small colored lights.

Dr. Augstein (Bromberg) regarded Dr. Grossmann's tests as the most practical ever published, if only the manufacturers could construct it more satisfactorily.

Professor Raehlmann exhibited curves which he had obtained for the perception of color in normal and color-blind eyes.

## ADAPTATION IN DISEASED AND HEALTHY EYES.

Dr. Schirmer (Gottingen) read a paper on this subject. He had found the albinotic light sense equal to that of the pigmented eye, and that of the night blind was also equal to the normal after prolonged adaptation. Night blindness he considered with Treitel to be a disease of adaptation, which depended upon some as yet unknown process in the pigment epithelium.

Professor Uhthoff (Berlin) opposed these views, as he had found the light sense defective in night blindness.

Dr. Gruening (New York) also spoke.

Dr. Schirmer, in reply, suggested that Professor Uhthoff had not given sufficient time for adaptation before testing the light sense; from twelve to twenty-four hours is sometimes necessary.

## NEW OPHTHALMOSCOPE.

Dr. Lyden Borthen (Trondjem) exhibited a new refraction ophthalmoscope.

## PERIMETRIC TESTS.

Dr. Bjerrum (Copenhagen) read a paper on an addition to the ordinary perimetric tests and the fields of vision in glaucoma. He uses very small test objects at considerable distances, and by this means could detect defects which escaped ordinary perimetric tests. He had thus found the field affected in the early stages of glaucoma.

Mr Berry (Edinburgh) fully approved of Bjerrum's method; it was useful in glaucoma and in amblyopia from toxic, as distinguished from inflammatory, lesions of the nerve.

In this Professor Hirschberg (Berlin) agreed.

## REFRACTION.

Dr. Ramos (Mexico) contrasted the refraction as found by

him in Mexico with that found by Cohn and others in Europe. The chief point was the almost complete absence of myopia in the native race. It occurred among half breeds, but not to the same extent as among the Europeans living in Mexico.

#### OTHER PAPERS.

Dr. Arninski (Essen) read a paper upon the relation between the far point of man's eye and his occupation, in which he regarded the hypermetropic as the normal eye.

Dr Gibret (Ghent) read a paper upon Daltonism in connection with the examination of railway servants and seaman.

#### SYMPATHETIC OPHTHALMIA.

On August 7, a discussion on this subject was opened by Mr. Brailey (London) in a speech which gave detailed description of the pathology of the eyeballs which excite and of those which suffer from sympathy. The exciting eyes exhibit a plastic uveitis, with clusters of cells in iris, ciliary body and choroidea, but the choria-capillaris and the pigment epithelium generally escape. Sympathy occurs after serous and suppurative diseases also, and has been produced by non-perforating tumors. In the sympathising eye the disease has begun with papillitis in 10% of cases. In 5% it has not gone beyond papillitis, but generally it is a uveitis of a serous kind with keratitis, punctata and high tension. It seems to travel through the nerve sheaths and then either along central vessels to papilla or along episcleral tissue to iris. It is hard to explain its occurrence in cases of non-perforating tumors, and its general non-appearance after suppuration, if it is caused, as many hold, by a bacillus. As to prevention, a timely enucleation is the best plan, and succeeds, unless the cause lies in the socket external to the globe, but evisceration, resection of the nerve, and iridectomy even have done good. If glaucoma exists in the second eye an iridectomy is useful.

Professor Deutschmann distinguished between sympathetic

irritation and sympathetic inflammation, and gave a brief account of his experiments upon rabbits. He succeeded, as is known, in producing sympathetic inflammation, beginning in the optic papilla, but nearly all the animals died with meningitis. In human eyes removed for causing sympathetic disease, and in the sympathising eyes also, he had always found staphylococci, but he did not assert that these cocci were the only cause of the disease. Possibly they assisted in the elaboration of a chemical poison which was the real toxic agent. There seemed to be several possible routes for the inflammatory process from the globe to the optic nerve sheath or vice versa, namely, the suprachoroidal space, the space around the central vessels, and the space beneath the capsule of Tenon, but in all cases it travelled from one eye to the other by means of the optic nerve sheath.

Dr. Darien (Paris) advocated Abadie's treatment of electric cauterisation or injection of corrosive sublimate solution into the exciting eye, and also injection of the latter remedy into the sympathising organ.

Mr. Cross (Bristol) spoke upon the prevention, and expressed his disapproval of the operation known as Mules', which, in his experience, had led to the occurrence of sympathy.

Dr. Parisotti, Wickerkiewicz (Posen), and Fulton (St. Paul) spoke.

Mr. Berry (Edinburg) considered that Deutschmann had not proved his case. In fourteen eyes removed by him for exciting sympathy, no micro-organisms could be detected.

Professor Cohn (Breslau) described a case of simulation of sympathetic blindness.

Mr. Story (Dublin) warmly supported Deutschmann's opinions, but thought the general septicæmia that occurred in his experiments lessened their demonstrative value. Objectors would always exist until he had produced sympathy without it. He had observed meningeal symptoms in his own practice. Iridectomy had never succeeded in the second eye, but he had been most successful in treating such cases by the

method proposed by the late Mr. Critchette in the *Ophthalmic Review* some years ago.

Dr. Crainicean (Bucharest) spoke.

Professor Haab (Zuerich) had found bacilli in 8 out of 12 eyes enucleated for panophthalmitis.

Dr. Rosenmeyer (Frankfurt) had seen atrophy occur from retrobulbar inflammation due to sympathy without any papillitis.

Dr. Hill Griffith (Manchester) stated 'that Mules' operation was most successful in properly chosen cases.

Dr. Weeks (New York) opposed Deutschmann's views, as the inflammation he had produced in the second eye was merely a part of a general pyæmia.

Dr. Levy (Strassburg), Germann (St. Petersburg), Logetshniksoff and Pfluger (Berne) spoke, and Drs. Brailey and Deutschmann replied.

#### IRIDOCYCLITIS AFTER INFLUENZA, ETC.

Professor Laqueur (Strassburg) read a paper on iridocyclitis after influenza.

Dr. Gallemarts (Brussels) exhibited the apparatus of Léon Gérard for the diagnosis of magnetic foreign bodies in the eyeball.

Professor Hirschberg discussed the communication.

#### ENDOTHELIUM OF ANTERIOR CHAMBER.

Dr. Nuel (Liège) read a paper upon the endothelium of the anterior chamber, and exhibited microscopic specimens showing stomata in the endothelium covering the anterior surface of the iris of rabbits.

#### SYMPATHETIC OPHTHALMIA.

Professor Rosmini (Milan) presented a communication on the treatment of sympathetic ophthalmia and of trachoma.



## TREATMENT OF ACUTE PANOPHTHALMITIS.

Dr. Boé (Paris) read a paper on the treatment of acute panophthalmitis. He has succeeded in isolating a streptococcus which produced contagious panophthalmitis. He advised evisceration and antiseptic injections as preferable to enucleation.

Professor Pflüger (Berne) and Dr. Chibret (Clermont Ferrand) discussed this paper. The latter strongly supported the views of MM. Abadie and Darien as to the hypodermic injections of perchloride of mercury in all cases where mercurialization is desirable.

## THE VITREOUS IN GLAUCOMA.

Dr. Haensell (Paris) read a paper on the pathology of the vitreous humor in glaucomatous eyes. The author's conclusions are that the glaucomatous process consists in a hyaline degeneration which invades gradually the cells of all the intraocular tissues, and renders them incapable of performing their vital functions. This degeneration commences in the papilla, and spreads thence to the vitreous. It precedes the state of high tension.

## TREATMENT OF CHOROIDO-RETINITIS.

Dr. Darien (Paris) read a paper on a new treatment for central choroido-retinitis and choroiditis disseminata. The treatment consists in hypodermic injections of perchloride of mercury.

Dr. Chibret and Van Millingen spoke in approval of the treatment, and Dr. Darien replied.

## COLOBOMA OF CHOROID.

Dr. Talko (Russia) reported a case of bilateral coloboma of the choroid with normal iris, exhibiting drawings of the eye.

### *Society Proceedings.*

#### FATIGUE OF VISUAL FIELD.

Dr. Willbrand (Hamburg) read a paper upon fatigue of the visual field, and showed charts of the field of vision in illustration of his paper.

In the discussion Professor Pflüger drew attention to the many possible sources of error in examining for such defects.

#### FORMATION OF NEW EYELID.

Dr. Wickerkiewicz (Posen) described a plastic operation for forming a new eyelid after extirpation of a lid tumor.

#### EYE LOTIONS.

Dr. Franke (Hamburg) read a paper upon the infection and disinfection of eye lotions. He had found no agent equal to corrosive sublimate.

#### CHOROIDITIS AND OSTEITIS DEFORMANS.

On August 8, Mr. Jonathan Hutchinson (London) exhibited pictures of a form of choroiditis occurring in subjects of osteitis deformans (Paget's disease), and also of a peculiar form of serpinginous, central and symmetrical choroiditis. The latter could not be attributed always to syphilis.

#### ULTRA-VIOLET RAYS IN SPECTRUM.

Dr. Widmark (Stockholm) presented a communication on the ultra-violet rays of the spectrum. The author has experimentally proved that the irritation caused by electric light is due to its action on the media, and not to its effect upon the retina, and he has established that this action is due to the ultra violet rays.

#### EXHIBITS.

Dr. Javal (Paris) exhibited a bifocal lens.

Dr. Valude (Paris) exhibited a case of *Verres Toniques*.

## OPHTHALMOMETRY.

Dr. Sulzer (Winterthur) read a paper upon the bearing of the angle  $a$  to ophthalmometrical measurements, and its determination by means of the ophthalmometer.

Professor Pflüger (Berne) gave an account of some ophthalmometrical observations. In a discussion on ophthalmometry, Dr. Swan Burnett (Washington), Dr. Javal (Paris) and Prof. Cohn (Breslau) expressed their favorable opinion of the ophthalmometer.

## RETINAL CHANGES IN HYDROPHOBIA.

Dr. Falchi then requested Professor Helmholtz to take the chair, after which he read a paper upon the retinal changes in hydrophobia, produced experimentally.

## THE OPTIC NERVE.

On August 9, Dr. Berheimer (Heidelberg) read a paper upon an anomaly in the optic nerve, and upon the anatomy of the roots of the nerve.

## SIDEROSIS BULBI.

Dr. Bunge (Halle) read a paper upon siderosis bulbi, and exhibited specimens.

## CATARACT EXTRACTION.

Dr. Bono (Turin) read a paper upon 1,250 cases of cataract extraction. In the last 200 only 1% were lost and 7% were but partially successful. The operation done was that of Speri-  
rina without iridectomy.

In the discussion, Dr. Wickerkiewicz expressed himself as daily more satisfied with the results of his method of washing out the anterior chamber.

## MICROSCOPICAL SECTIONS.

Professor Uhthoff exhibited microscopical sections and drawings of various pathological states of the optic nerve.